IN THE CLAIMS

Kindly amend claims 1, 19, 23, 25-27, 31, 39 40 and 41 as follows and delete claims 11 and 32 without prejudice to, or disclaimer of, the subject matter therein. The subject matter of claims 11 and 32 has been placed into independent claims 1 and 19, respectively.

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1.   (Currently Amended)   A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location;

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type;

directing said signaling data to said destination location associated with said first or second traffic type; and

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first

or second traffic type; the second switch configured to direct traffic data of the first traffic type <u>to a destination end office</u> and the second traffic type <u>to another type of destination network element</u>.

2.   (Original)   The method of Claim 1 wherein said signaling data comprises an initial message and following messages.

3.   (Previously Presented)   The method of Claim 1 wherein said step of determining a traffic type further comprises the steps of:

decoding said signaling data;

determining a called directory number from said signaling data that has been decoded; and

matching said called directory number with an entry of a predetermined table correlating directory numbers, said traffic types, and said destination locations.

4.   (Previously Presented)   The method of claim 1 further comprising the step of:

creating a table, wherein each element of said table correlates a directory number with said traffic type and said destination location; and

storing said table.

5.   (Original)   The method of Claim 1 wherein said signaling data that has been received and said signaling data that has been directing are of a first protocol.

6.   (Original)   The method of Claim 1 wherein said signaling data that has been received is of a first protocol and said signaling data that has been directing is of a second protocol.

7.   (Previously Presented)   The method of Claim 1 wherein the step of directing said signaling data to said destination location associated with said traffic type that has been determined to establish a call further comprises the steps of:

forwarding said signaling data that has been received in a first protocol to a first destination network element, when said traffic type is characterized as said first traffic type;

translating said signaling data that has been received in said first protocol to corresponding signaling data of a second protocol, when said traffic type is characterized as said second traffic type; and

forwarding said signaling data of said second protocol to a second destination network element, when said traffic type is characterized as said second traffic type.

8.   (Original)   The method of Claim 7 wherein said first protocol is Signaling System Seven (SS7) and said step of forwarding is accomplished via a SS7 A-link.

9.   (Original)   The method of claim 7 wherein said second protocol is ISDN Primary Rate Interface (PRI) Q.931 and said step of forwarding is accomplished via a Primary Rate Interface.

10.   (Canceled)

11.   (Canceled)

12.   (Original)   The method of claim 1 wherein said destination location is a remote access server.

13.   (Previously Presented)   The method of claim 1 wherein said step of controlling a second switch comprises the steps of:

sending an application programming interface command to said second switch; and

setting up a connection through said second switch to a port connected to said destination location according to said command.

14.   (Previously Presented)   The method of claim 12 wherein said connection is selected from the group consisting of a switched connection and a soft Permanent Virtual Circuit connection.

15. (Previously Presented) The method of claim 1 wherein said second switch is an asynchronous transfer mode switch.

16. (Previously Presented) The method of claim 1 wherein traffic data is distributed over a digitized voice transmission system selected from the group consisting of T1, E1, STS-1, DS-3, frame relay, native ATM, and Ethernet.

17. (Previously Presented) The method of claim 1 further comprising the steps of:

storing traffic detail information, when said traffic type is characterized as said second traffic type; and

transferring said traffic detail information that has been stored to a traffic accounting system.

18. (Previously Presented) The method of claim 17 wherein said traffic detail information is selected from the group consisting of call start time-stamp, call end time-stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B channel, outbound B channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification.

19.   (Currently Amended)   A destination call router for routing traffic from an originating location to a destination location over a PSTN, the destination call router comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location to an end office being associated with said first traffic type and at least one destination location being associated with said second traffic type.

20.   (Previously Presented)   The designation call router of claim 19 wherein said first segment is operable to

receive call set-up information of a first protocol;

determine said traffic type from said call set-up information;

direct said call set-up information of said first protocol to a first location type destination location for said first traffic type and forward replies from said first location type destination location to said originating destination in order to establish a call;

translate said call set-up information of said first protocol to a second protocol for said second traffic type and direct said call set-up information of said second protocol to a second location type destination network element and forward to said originating destination in said first protocol replies in said second protocol from said second location type destination network element in order to establish a call;

control a switch to connect data of said first traffic type to said first type destination network element and data of said second traffic type to said second type destination network element.

21.   (Original)   The destination call router of claim 19 wherein said first segment comprises:

a Broadband Interworking Call Router.

22.   (Previously Presented)   The destination call router of claim 19 wherein said second segment comprises:

a plurality of second switches, each second switch being an ATM switch.

23.   (Currently Amended)   An   apparatus   to   provide   network congestion relief for the public switched telephone network (PSTN), the apparatus comprising:

a receiver for receiving call set-up information of a first protocol from a first switch over the PSTN;

a first processing unit for determining a traffic type from said received information over the PSTN;

a second processing unit for translating said call set-up information of said first protocol to a second protocol, when said traffic type is characterized as a second traffic type over the PSTN;

a transmitter for forwarding, over the PSTN,

a)   said call set-up information of said first protocol to ~~a first location type~~ an end office, destination network element when said traffic type is characterized as a first traffic type and

b)   said call set-up information of said second protocol to a second ~~location type~~ destination network element type when said traffic type is characterized as a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and

means for controlling a second switch over the PSTN serving a destination location to connect data of said first traffic type to said ~~first type~~ end office, destination network element and data of said second traffic type to said second type of destination network element.

24.   (Original)   The apparatus of claim 23 further comprising:

means for associating call set-up information with one of a plurality of destination network elements; and

means for storing said associated call set-up information.

25. (Currently Amended) The apparatus of ~~claim 23~~ claim 24 further comprising:

means for distinguishing received call set-up information as being associated with one of a plurality of destination network elements of a predetermined destination type.

26. (Currently Amended) The apparatus of ~~claim 23~~ claim 24 further comprising:

means for associating one of said plurality of destination network elements with one of a plurality of second switches; and

means for storing said association.

27. (Currently Amended) The apparatus of ~~claim 23~~ claim 24 further comprising:

means for distinguishing said destination network elements as being associated with one of a plurality of second switches of a predetermined destination type.

28. (Previously Presented) The apparatus of claim 23 wherein said first processing unit comprises:

a decoder for decoding said call set-up information of a first protocol;

an isolator means for determining the called directory number contained in said received call set-up information; and

a subprocessor for performing a routing table lookup of said determined called directory number on a predetermined table of directory numbers associated with traffic of said second traffic type and setting said type of traffic as said second type if a matching directory number is looked up and as said first type if no matching directory number is looked up.

29.   (Previously Presented)   The apparatus of claim 23 wherein said first traffic type is a voice call and said second traffic type is data traffic.

30.   (Original)   The apparatus of claim 23 wherein said second processing unit comprises:

means for converting SS7 call set-up information to the corresponding ISDN Q.931 call set-up information.

31.   (Currently Amended)   The apparatus of claim 30 wherein said transmitter comprises:

means for transferring said Q.931 information across a Primary Rate interface to said second type of destination network element.

32.   (Canceled)

33.   (Original)   The apparatus of claim 23 wherein said second type destination network element is a remote access server.

34.   (Previously Presented)   The apparatus of claim 23 wherein said means for controlling a second switch to route call data comprises:

means for sending an application programming interface command to said second switch; and

means for setting up a connection through said second switch to a port connected to said destination network element according to said received command.

35.   (Previously Presented)   The apparatus of claim 23 wherein said second switch is an asynchronous transfer mode switch.

36.   (Previously Presented)   The apparatus of claim 23 wherein said traffic data is distributed over a digitized voice transmission system selected from the group consisting of T1, E1, STS-1, DS-3, frame relay, native ATM, and Ethernet.

37.   (Previously Presented)   The apparatus of claim 23 further comprising:

means for storing call detail information when said determined traffic type is of said second type; and

means for transferring said stored call detail information to a call accounting system.

38.   (Original)   The apparatus of claim 37 wherein said stored call detail information is selected from the group consisting of call start time-

stamp, call end time-stamp, called party directory number, called party sub-address, calling party directory number, calling party sub-address, disconnect reason, inbound B channel, outbound B channel, inbound circuit identification code, outbound circuit identification code, inbound node identification, and outbound node identification.

39. (Currently Amended) A destination call router for directing voice and data traffic across the PSTN to call destinations and for providing network congestion relief for data traffic, said traffic including signaling and non-signaling traffic from a first switch serving an originating location, said destination call router comprising:

a plurality of asynchronous transfer mode switches, each asynchronous transfer mode switch being a second switch serving a destination location which includes at least a destination end office; and

a Broadband Interworking Call Router (BICR) connected with said asynchronous transfer mode switches, said BICR intercepting signaling of a first or second protocol from a first switch, said BICR translating signaling to a second protocol when receiving signaling for said data calls in said first protocol, said BICR and routing said intercepted signaling to said call destinations, controlling said plurality of asynchronous transfer mode switches to direct traffic to said destinations.

40.   (Currently Amended)   A method for routing traffic over a Public Switched Telephone Network (PSTN) from an origin location to a destination location associated with a traffic type, said traffic comprising signaling data and non-signaling traffic data, the method comprising the steps of:

receiving signaling data from a first switch serving the origin location;

determining said traffic type from said signaling data that has been received wherein said traffic type is characterized as a first traffic type or a second traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type;

translating said signaling data associated with said first traffic type from a first protocol to a second protocol associated with said second traffic type;

directing said signaling data to said destination location associated with said first or second traffic type that has been determined to establish a call; and

controlling a second switch serving said destination location to direct traffic data from the origin location to said destination associated with said first or second traffic type; the switch configured to direct traffic data of the first traffic type to an end office and the second traffic type to another type of network element.

41. (Currently Amended) A destination call router for routing traffic from an originating location to a destination location over a PSTN comprising:

a first segment responsive to a first switch of a signaling network for determining a traffic type as a first traffic type or a second traffic type and commanding further action based on said traffic type, the first traffic type being a non-IP based voice traffic type and the second traffic type being an IP based traffic type; and for translating a call determined to be the first traffic type associated with a first protocol into a second protocol associated with the second traffic type; and

a second segment responsive to commands from said first segment for switching, using a second switch, received transmissions between a plurality of destination locations, at least one destination location being an end office associated with said first traffic type and at least one destination location being associated with said second traffic type.